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10. (Amended) The system of claim 1, wherein the operational amplifier includes an additional input, and further comprising:

an additional input resistor coupled to the additional input, and;

an additional feedback resistor coupled between a voltage source and the additional input, wherein the additional feedback resistor is further coupled in parallel with a combination of an additional adjustment resistor and an additional switching element.

11. (Amended) A system for accurately sensing current levels within an alternator, the system comprising:

an amplification means for amplifying or reducing a first signal indicative of a current level within the alternator to produce a second signal indicative of the current level;

a modification means for adjusting the level of amplification or reduction of the amplification means; and

a processing means for controlling the modification means based upon at least one of the second signal and a third signal based upon the second signal, and for processing at least one of the second signal and the third signal to determine a current measurement value.